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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,077	11/27/2000	Juin-Hwey Chen	1875.0250001/RES/AJF	3566

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EXAMINER

OPSASNICK, MICHAEL N

ART UNIT PAPER NUMBER

2655

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/722,077

Applicant(s)

CHEN, JUIN-HWEY

Examiner

Michael N. Opsasnick

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 60-64 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 28-40 is/are rejected.
- 7) ☒ Claim(s) 9-27, 41-59 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 9-27,41-59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. Claims 60-64 are allowable over the prior art of record.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8,28-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bhaskar (5487086).

As per claims 1,28,33, Bhaskar (5487086) teaches a method of predictive coding (col. 4 lines 10-21) comprising:

“predicting the speech signal to derive a residual signal” as residual predicting  
(col. 4 lines 10-16)

“combining the residual....first noise feedback...input signal” as the residual is combined with the quantized parameters to produce a predictive quantizer residual (Fig. 2, subblock 24), along with the associated noise (col. 6 lines 50-55). Bhaskar (5487086), in subblock 23, teaches noise masking in the calculation of the noise coefficient (col. 6 line 53 – col. 7 line 11), using an improved “noise feedback” from the power spectral calculations based on the short term and long term parameters (Fig.2, the input into subblock 26, then into subblock 25) and the noise shaping in subblock 28. In fact, Bhaskar (5487086) teaches this feedback as an improvement over older well known noise feedback systems (col. 2 lines 55-67, Fig. 1; i.e., noise feedback systems are indeed old and well known in the art).

“predictively quantizing....quantization noise” as performing the quantization and choosing the appropriate vector by minimizing error (col. 6 line 64 – col. 7 line 15).

“filtering.....first noise feedback signal” as filtering/weighting such that the vector with the least amount of error is chosen (col. 5 lines 55-67)

As per claims 2,28,34, Bhaskar (5487086) teaches using short term and long term predictors to produce the residual (Fig. 2, subblocks 21, 22 and 24).

As per claims 3,30,35, Bhaskar (5487086) teaches predicting a resultant signal (Fig. 3, subblock 31)

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As per claims 4,31,36 Bhaskar (5487086) teaches the reconstructed signal based on the transmitted estimate vector parameters (Fig. 3)

As per claims 5,6,37,38, Bhaskar (5487086) teaches short term and long term predictors (Fig. 2)

As per claims 7,39 Bhaskar (5487086) teaches deriving the prediction and filter parameters based on the original estimation of the speech sample (col. 5 lines 27-47)

As per claims 8,29,32,40, Bhaskar (5487086) teaches using the short term and long term predictors (fig. 2) to be used in spectral shaping (col. 4 lines 2-3).

### ***Response to Arguments***

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**  
(703) 872 9314,

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(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. David Ometz, can be reached at (571)272-7593. The facsimile phone number for this group is (571)272-7629.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571)272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno

5/21/05

  
Michael N. Opsasnick  
Examiner  
Art Unit 2655